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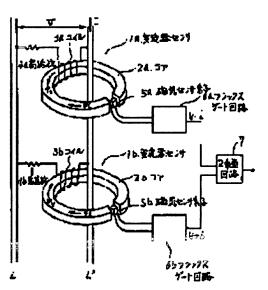
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## (54) WATTMETER

## (57)Abstract:

PURPOSE: To highly accurately detect a power in a simple constitution even under bad environmental circumstances and measure even a D.C. power.

CONSTITUTION: Ends of series connections of a high resistor 4a and a coil 3a, and a high resistor 4b and a coil 3b are connected between power source lines L and L' of general household or the like, and moreover, cores 2a, 2b are arranged so that the line L' penetrates therethrough. Accordingly, a magnetic flux Φi proportional to a load current I and a magnetic flux Φv proportional to a source voltage V are induced to the cores 2a, 2b. At this time, since the coils 3a and 3b are wound in opposite directions, a magnetic flux Φv-Φi are induced to the core 2a, while a magnetic flux Φv+Φi are induced to the core 2b. These magnetic fluxes are detected by magnetic sensor



elements 5a, 5b. Signals proportional to a sum of a current and a voltage and a difference between the current and the voltage from flux gate circuits 6a, 6b are input to a square difference circuit 7 which in turn outputs a signal proportional to a power.

## **LEGAL STATUS**

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